

Guide to Contraindications and Precautions* to Commonly Used Vaccines

GENERAL FOR ALL VACCINES

DTaP, DT, Td, Hep A, Hep B, Hib, Flu, IPV, MMR, PCV, PPV, Var

True Contraindications and Precautions*

Contraindications

- Serious allergic reaction (e.g., anaphylaxis) after a previous vaccine dose
- Serious allergic reaction (e.g., anaphylaxis) to a vaccine component

Precautions

- Moderate or severe acute illness with or without fever

Untrue (vaccines can be administered)

- Mild acute illness with or without fever
- Mild to moderate local reaction (i.e., swelling, redness, soreness); low-grade or moderate fever after previous dose
- Lack of previous physical examination in well-appearing person
- Current antimicrobial therapy
- Convalescent phase of illness
- Premature birth (hepatitis B vaccine is an exception in certain circumstances)[†]
- Recent exposure to an infectious disease
- History of penicillin allergy, other nonvaccine allergies, relatives with allergies, receiving allergen extract immunotherapy

DTaP (Diphtheria-Tetanus-Pertussis)

True Contraindications and Precautions

Contraindications

- Severe allergic reaction after a previous dose or to a vaccine component
- Encephalopathy (e.g., coma, decreased level of consciousness; prolonged seizures) within 7 days of administration of previous dose of DTP or DTaP
- Progressive neurologic disorder, including infantile spasms, uncontrolled epilepsy, progressive encephalopathy: defer DTaP until neurologic status clarified and stabilized.

Precautions

- Fever of $>40.5^{\circ}\text{C}$ ≤ 48 hours after vaccination with a previous dose of DTP or DTaP
- Collapse or shock-like state (i.e., hypotonic hyporesponsive episode) ≤ 48 hours after receiving a previous dose of DTP/DTaP
- Seizure ≤ 3 days of receiving a previous dose of DTP/DTaP[§]
- Persistent, inconsolable crying lasting ≥ 3 hours ≤ 48 hours after receiving a previous dose of DTP/DTaP
- Moderate or severe acute illness with or without fever

Untrue (vaccines can be administered)

- Temperature of $<40.5^{\circ}\text{C}$, fussiness or mild drowsiness after a previous dose of diphtheria toxoid-tetanus toxoid-pertussis vaccine (DTP)/DTaP
- Family history of seizures[§]
- Family history of sudden infant death syndrome
- Family history of an adverse event after DTP or DTaP administration
- Stable neurologic conditions (e.g., cerebral palsy, well controlled convulsions, developmental delay)

DT, Td (Diphtheria-Tetanus)

True Contraindications and Precautions***

Contraindications

- Severe allergic reaction after a previous dose or to a vaccine component

Precautions

- Guillain-Barré syndrome <6 weeks after previous dose of tetanus toxoid-containing vaccine
- Moderate or severe acute illness with or without fever

Untrue (vaccines can be administered)

Hep A (Hepatitis A)

True Contraindications and Precautions

Contraindications

- Severe allergic reaction after a previous dose or to a vaccine component

Precautions

- Pregnancy
- Moderate or severe acute illness with or without fever

Untrue (vaccines can be administered)

Hep B (Hepatitis B)

True Contraindications and Precautions

Contraindication

- Severe allergic reaction after a previous dose or to a vaccine component

Precautions

- Infant weighing $<2,000$ grams[†]
- Moderate or severe acute illness with or without fever

Untrue (vaccines can be administered)

- Pregnancy
- Autoimmune disease (e.g., systemic lupus erythematosus or rheumatoid arthritis)

Hib (Haemophilus influenzae type B)

True Contraindications and Precautions

Contraindications

- Severe allergic reaction after a previous dose or to a vaccine component
- Age <6 weeks

Precaution

- Moderate or severe acute illness with or without fever

Untrue (vaccines can be administered)

Flu (Influenza)

True Contraindications and Precautions

Contraindication

- Severe allergic reaction to previous dose or vaccine component, including egg protein

Precautions***

- Moderate or severe acute illness with or without fever

Untrue (vaccines can be administered)

- Nonsevere (e.g., contact) allergy to latex or thimerosal
- Concurrent administration of coumadin or aminophylline

IPV (Polio)		PCV (Pneumococcal Conjugate)	
True Contraindications and Precautions	Untrue (vaccines can be administered)	True Contraindications and Precautions	Untrue (vaccines can be administered)
Contraindications <ul style="list-style-type: none"> Severe allergic reaction to previous dose or vaccine component 	—	Contraindication <ul style="list-style-type: none"> Severe allergic reaction after a previous dose or to a vaccine component 	—
Precautions <ul style="list-style-type: none"> Pregnancy Moderate or severe acute illness with or without fever 		Precaution <ul style="list-style-type: none"> Moderate or severe acute illness with or without fever 	
MMR [†] (Measles-Mumps-Rubella)		PPV (Pneumococcal Polysaccharide)	
True Contraindications and Precautions	Untrue (vaccines can be administered)	True Contraindications and Precautions	Untrue (vaccines can be administered)
Contraindications <ul style="list-style-type: none"> Severe allergic reaction after a previous dose or to a vaccine component Pregnancy Known severe immunodeficiency (e.g., hematologic and solid tumors; congenital immunodeficiency; long-term immunosuppressive therapy;^{*,†} or severely symptomatic human immunodeficiency virus [HIV] infection) 	<ul style="list-style-type: none"> Positive tuberculin skin test Simultaneous TB skin testing^{††} Breast-feeding Pregnancy of recipient's mother or other close or household contact Recipient is child-bearing-age female Immunodeficient family member or household contact Asymptomatic or mildly symptomatic HIV infection Allergy to eggs 	Contraindication <ul style="list-style-type: none"> Severe allergic reaction after a previous dose or to a vaccine component 	—
Precautions <ul style="list-style-type: none"> Recent (≤11 months) receipt of antibody-containing blood product (specific interval depends on product—see MMWR 2002; 51 [No. RR-2]: 7) History of thrombocytopenia or thrombocytopenic purpura Moderate or severe acute illness with or without fever 		Precaution <ul style="list-style-type: none"> Moderate or severe acute illness with or without fever 	
		Var ^{††} (Varicella)	
True Contraindications and Precautions	Untrue (vaccines can be administered)	True Contraindications and Precautions ^{†††}	Untrue (vaccines can be administered)
Contraindications <ul style="list-style-type: none"> Severe allergic reaction after a previous dose or to a vaccine component Substantial suppression of cellular immunity Pregnancy 		Contraindications <ul style="list-style-type: none"> Severe allergic reaction after a previous dose or to a vaccine component Substantial suppression of cellular immunity Pregnancy 	<ul style="list-style-type: none"> Pregnancy of recipient's mother or other close or household contact Immunodeficient family member or household contact^{††} Asymptomatic or mildly symptomatic HIV infection Humoral immunodeficiency (e.g., agammaglobulinemia)
Precautions <ul style="list-style-type: none"> Recent (≤11 months) receipt of antibody-containing blood product (specific interval depends on product—MMWR 2002; 51 [No. RR-2]: 7) Moderate or severe acute illness with or without fever 		Precautions <ul style="list-style-type: none"> Recent (≤11 months) receipt of antibody-containing blood product (specific interval depends on product—MMWR 2002; 51 [No. RR-2]: 7) Moderate or severe acute illness with or without fever 	

Adapted from ACIP and AAFP recommendations in MMWR General Recommendations on Immunization, February 8, 2002; 51 [No. RR-2]

* Events or conditions listed as precautions should be reviewed carefully. Benefits and risks of administering a specific vaccine to a person under these circumstances should be considered. If the risk from the vaccine is believed to outweigh the benefit, the vaccine should not be administered. If the benefit of vaccination is believed to outweigh the risk, the vaccine should be administered. Whether and when to administer DTaP to children with proven or suspected underlying neurologic disorders should be decided on a case-by-case basis.

† Hepatitis B vaccination should be deferred for infants weighing <2,000 grams if the mother is documented to be hepatitis B surface antigen (HbsAg)-negative at the time of the infant's birth. Vaccination can commence at chronological age 1 month. For infants born to HbsAg-positive women, hepatitis B immunoglobulin and hepatitis B vaccine should be administered at or soon after birth regardless of weight.

§ Acetaminophen or other appropriate antipyretic can be administered to children with a personal or family history of seizures at the time of DTaP vaccination and every 4–6 hours for 24 hours thereafter to reduce the possibility of postvaccination fever (Source: American Academy of Pediatrics. Active immunization. In: Pickering LK, ed. 2000 red book: report of the Committee on Infectious Diseases. 25th ed. Elk Grove Village, IL: American Academy of Pediatrics, 2000).

†† MMR and varicella vaccines can be administered on the same day. If not administered on the same day, these vaccines should be separated by ≥28 days.

** Substantially immunosuppressive steroid dose is considered to be ≥2 weeks of daily receipt of 20 mg or 2 mg/kg body weight of prednisone or equivalent.

††† Measles vaccination can suppress tuberculin reactivity temporarily. Measles-containing vaccine can be administered on the same day as tuberculin skin testing. If testing cannot be performed until after the day of MMR vaccination, the test should be postponed for ≥4 weeks after the vaccination. If an urgent need exists to skin test, do so with the understanding that reactivity might be reduced by the vaccine.

†††† If a vaccinee experiences a presumed vaccine-related rash 7–25 days after vaccination, avoid direct contact with immunocompromised persons for the duration of the rash.

*** Neuropathy (esp. brachial plexus neuropathy) following previous dose: while the ACIP does not list it as such (MMWR 2002; 51 [No. RR-2]), some experts may consider this a precaution or contraindication to further tetanus (incl. DT, Td) immunization.

††††† Guillain-Barré Syndrome (GBS): While it is unclear whether influenza immunization specifically increases the risk of GBS, "...avoiding vaccinating persons who are not at high risk for severe influenza complications who are known to have developed GBS within 6 weeks after a previous influenza vaccination is prudent." (MMWR 2002, 51/RR-3).